Chapter 11: Agriculture and the Environment

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| Amount of world’s land currently in agriculture  Number of Crop species that feed most of the world | Top 5 crops in order of importance | Rangeland vs. Pasture | |
| Top Exporters of Grains | No net increase of grain production since late 90s….2 Questions that arise are? | Aquaculture vs. Mariculture  Top species farmed in each? | |
| 6 Ways agro-systems differ from natural systems: | Limiting Factors:  Soil nutrients including  Older soils become more infertile. Why? | Future of Agriculture:  3 technological approaches:  1.  2.  3. | Green Revolution: What is it and when did it begin: |
| Organic Farming: What is it? | GMCs. What are they and why developed? | Climate Change: Impact predicted on land and land required for agriculture | |

Comparing modern mechanized agriculture with resource-based, more sustainable agriculture:

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|  | Modern Demand Based Agriculture | Resource Based/Sustainable Agriculture (incl. organics) |
| Demand for land, water and fuel (High or low) |  |  |
| Organic crops (yes or no) |  |  |
| Genetically Modified Crops? (yes or no) |  |  |
| Chemical pesticide use (high or low) |  |  |
| Heavy fertilizer use  (high or low) |  |  |

Read traditional Farming Methods on page 207

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| Why is it a good practice to allow a field to go completely through secondary succession before replanting? In other words, what are the benefits of this practice? |  |

Looking at the Critical Thinking Issue on page 213

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| How might farmers save water (See paragraph 3) | How might farmers divert additional water? |
| What is happening already to some aquifers and rivers? | Looking at Table 11.2: Why is eating plants more sustainable over eating beef and chicken? |